IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Appellants	:	Sherif Yacoub et al.
Application No.	:	10/696,839
Filed	:	October 30, 2003
For	:	SYSTEM AND METHOD FOR INTERACTIVE VOICE RESPONSE ENHANCED OUT-CALLING
Examiner	:	MD S. Elahee
Art Unit	:	2614
Docket No.	:	200309325-1
Date	:	April 1, 2010

APPEAL BRIEF

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Sir:

This appeal is from the decision of the Examiner, in an Office Action mailed November 5, 2009, finally rejecting claims 1-25.

REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

RELATED APPEALS AND INTERFERENCES

Appellants' representative has not identified, and does not know of, any other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-25 are pending in the application. Claims 1-25 were finally rejected in the Office Action dated November 5, 2009. Appellants appeal the final rejection of claims 1-25 which are copied in the attached CLAIMS APPENDIX.

STATUS OF AMENDMENTS

No Amendment After Final is enclosed with this brief. The last Amendment was filed August 12, 2009.

SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 1

Claim 1 is directed to a method for managing telephone calls. The method comprises: calling a contact (Current Application page 6, lines 4-5; page 10, line 18; page 11, lines 4-6); presenting the contact with a predetermined out-calling dialog (Current Application page 9, lines 8-24; page 10, line 19); translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms (Current Application page 10, line 19-21); connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed (Current Application page 10, lines 21-23; page 12, lines 3-4); and providing the operator with the textual words (Current Application page 10, lines 23-24; page 12, lines 16-19).

Dependent Claims 2-15

Claim 2 is directed to the method of claim 1 wherein calling includes selecting the contact from a set of contacts within a contact database (Current Application page 5, lines 18-19; page 11, lines 2-4). Claim 3 is directed to the method of claim 1 further comprising: classifying the contact as either a person or not a person (Current Application page 6, lines 9-10; page 11, lines 6-7); and terminating the call, if the contact is not a person (Current

Application page 11, lines 8-9). Claim 4 is directed to the method of claim 1 wherein presenting includes: selecting the dialog from a set of dialogs stored in a dialog database based upon a set of attributes associated with the contact (Current Application page , lines ; page , lines). Claim 5 is directed to the method of claim 1: further comprising, storing the contact's vocal responses, textual words, and contact attributes in a contact database (Current Application page 11, lines 15-17); and wherein providing includes, providing the operator with access to the contact database (Current Application page 12, lines 11-15). Claim 6 is directed to the method of claim 1 wherein connecting includes: continuing a next portion of the out-calling dialog with the contact while waiting for the human operator to become available (Current Application page 9, lines 19-24). Claim 7 is directed to the method of claim 1: further comprising, determining whether the contact is interested in the out-calling dialog (Current Application page 11, lines 23-25); and wherein connecting includes, connecting the contact to the operator, if the contact is interested (Current Application page 12, lines 3-5). Claim 8 is directed to the method of claim 7, wherein determining includes: applying a set of heuristics to the textural words (Current Application page 7, lines 10-13). Claim 9 is directed to the method of claim 7, wherein determining includes: matching the textual words with predetermined keywords associated with interest (Current Application page 8, lines 5-17). Claim 10 is directed to the method of claim 7, wherein determining includes: matching the textual words with predetermined keywords associated with disinterest (Current Application page 8, lines 5-17). Claim 11 is directed to the method of claim 7, wherein determining includes: applying a set of heuristics to the textual words (Current Application page 7, lines 10-13); and concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's interest (Current Application page 8, lines 8-11). Claim 12 is directed to the method of claim 7 wherein determining includes applying a set of heuristics to the textual words; associating a score with each heuristic (Current Application page 8, lines 8-10); totaling the scores; and concluding that the contact is interested if the total score is above a predetermined threshold (Current Application page 8, lines 15-17). Claim 13 is directed to the method of claim 7 further comprising terminating the call with the contact, if the contact is not interested (Current Application page 9, lines 5-7). Claim 14 is directed to the method of claim 7 further comprising performing the translating and determining elements in parallel (Current Application page 7, lines 7-9). Claim 15 is directed to the method of claim 7, further comprising performing the determining element after the predetermined portion of the out-

calling dialog with the contact is completed (Current Application page 10, lines 4-8).

Independent Claim 16

Claim 16 is directed to a method for managing telephone calls, comprising: calling a contact (Current Application page 6, lines 4-5; page 10, line 18; page 11, lines 4-6); presenting the contact with a predetermined out-calling dialog Current Application page 9, lines 8-24; page 10, line 19); translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms (Current Application page 10, line 19-21); connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed (Current Application page 10, lines 21-23; page 12, lines 3-4); providing the operator with the textual words (Current Application page 10, lines 23-24; page 12, lines 16-19); storing the contact's vocal responses, textual words, and contact attributes in a contact database (Current Application page 11, lines 15-17); wherein providing includes, providing the operator with access to the contact database; determining whether the contact is interested in the out-calling dialog (Current Application page 11, lines 23-25); wherein connecting includes, connecting the contact to the operator, if the contact is interested (Current Application page 12, lines 3-5); and terminating the call with the contact, if the contact is not interested (Current Application page 9, lines 5-7).

Independent Claim 17

Claim 17 is directed to a computer program code for commanding a computer to manage telephone calls, comprising: calling a contact (Current Application page 6, lines 4-5; page 10, line 18; page 11, lines 4-6); presenting the contact with a predetermined out-calling dialog (Current Application page 9, lines 8-24; page 10, line 19); translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms (Current Application page 10, line 19-21); connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed (Current Application page 10, lines 21-23; page 12, lines 3-4); and providing the operator with the textual words (Current Application page 10, lines 23-24; page 12, lines 16-19).

Dependent Claims 18-20

Claim 18 is directed to the medium of claim 17: further comprising, storing

the contact's vocal responses, textual words, and contact attributes in a contact database (Current Application page 11, lines 15-17); and wherein providing includes, providing the operator with access to the contact database (Current Application page 12, lines 11-15). Claim 19 is directed to the medium of claim 17 wherein connecting includes: continuing a next portion of the out-calling dialog with the contact while waiting for the human operator to become available (Current Application page 9, lines 19-24). Claim 20 is directed to the medium of claim 17: further comprising, determining whether the contact is interested in the out-calling dialog (Current Application page 11, lines 23-25); and wherein connecting includes, connecting the contact to the operator, if the contact is interested (Current Application page 12, lines 3-5).

Independent Claim 21

Claim 21 is directed to a system for managing telephone calls, comprising a: means for calling a contact (Current Application page 6, lines 4-5); means for presenting the contact with a predetermined out-calling dialog (Current Application page 6, lines 13-15); means for translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms (Current Application page 6, line 23-24); means for connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed (Current Application page 6, lines 21-23); and means for providing the operator with the textual words (Current Application page 9, lines 25 to page 10, line 4).

Dependent Claims 22-23

Claim 22 is directed to the system of claim 21, further comprising: means for storing the contact's vocal responses, textual words, and contact attributes in a contact database (Current Application page 7, lines 5-6). Claim 23 is directed to the system of claim 21, further comprising: means for determining whether the contact is interested in the out-calling dialog (Current Application page 9, lines 5-7; page 9, line 25- page 10, line 4).

Independent Claim 24

Claim 24 is directed to a system for managing telephone calls between an operator and a contact, comprising: a contact database for storing information on the contact (Current Application page 5, lines 18-19); a dialog database containing a predetermined out-

calling dialog (Current Application page 6, lines 16-17); a call manager for calling the contact and presenting the contact with the dialog (Current Application page 6, lines 4-8); and an interactive voice response module for translating the contact's vocal responses to the dialog into textual words and storing the words in the contact database which are accessible to the operator (Current Application page 6, lines 23-24).

Dependent Claim 25

Claim 25 is directed to the system of claim 24, wherein the contact database includes: a set of attributes associated with the contact (Current Application page 5, lines 20-21).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 1-11 and 13-25 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,990,179 ("Merrow") in view of U.S. Patent 6,850,766 ("Lau"), and further in view of U.S. Patent 7,366,285 ("Parolkar").

2. Claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Merrow in view of Lau, further in view of Parolkar, and further in view of U.S. Patent 5,774,525 ("Kanevsky").

ARGUMENT

Claims 1-25 are pending in the current application. In a Final Office Action dated November 5, 2009, the Examiner rejected claims 1-11 and 13-25 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,990,179 ("Merrow"), in view of U.S. Patent 6,850,766 ("Lau"), and further in view of U.S. Patent 7,366,285 ("Parolkar"); and rejected claim 12 under 35 U.S.C. §103(a) as being unpatentable over Merrow in view of Lau further in view of Parolkar and further in view of U.S. Patent 5,774,525 ("Kanevsky").

The Examiner has twice rejected claims 1-11 and 13-25 of the current application based on the above cited references despite Appellant's detailed arguments with regard to the dissimilarity of the teachings of these references from the currently claimed invention. Therefore, Appellant believes that an appeal at this time is the most expeditious

vehicle for advancing prosecution. The primary object of this appeal brief is to demonstrate that claims 1-11 and 13-25 are patentable over Merrow in view of Lau and further in view of Parolkar and that claim 12 is patentable over Merrow in view of Lau further in view of Parolkar and further in view of Kanevsky.

ISSUE 1

1. Whether claims 1-11 and 13-25 are unpatentable under 35 U.S.C. §103(a) over Merrow in view of Lau, and further in view of Parolkar.

In rejecting claims 1, 17, and 21, the Examiner contends that Merrow, Lau, and Parolkar teach the elements of claims 1, 17, and 21. According to M.P.E.P. §2143 A, in light of *KSR International Co. v. Teleflex Inc.*, in order

> [t]o reject a claim based on this rationale, Office personnel must ***articulate*** . . . a ***finding*** that the prior art included ***each element claimed***, although not necessarily in a single prior art reference, *with the only difference being the lack of actual combination of the elements in a single prior art reference*. (emphasis added)

M.P.E.P. §2143 A also states the "[t]he rationale to support a conclusion that the claim would have been obvious is that ***all the claimed elements*** were known in the prior art." In addition, "[i]f any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art."

In rejecting claims 1, 17, and 21, the Examiner contends that:

"Merrow teaches presenting the contact with a ***predetermined out-calling dialog***"

and sites col. 2, lines 50-col. 3, lines 40. Appellant respectfully disagrees. Merrow does not teach establishing a dialog. Instead, Merrow is actually directed to a system and method for determining the *status of* an answered telephone during the course of an outbound telephone call and applies only to the initial part of the phone call (Title, Abstract, Technical Field, col. 2, lines 44-46). As Merrow explains with reference to Figures 2 and 3, an automated telephone calling device places a telephone call to a location having a telephone number at which a target person is listed. When the telephone call is answered, the system determines whether a live person or an answering machine answers the call. When a spoken response is received from a live person, a speech recognition device performs a speech recognition analysis on the spoken response to determine a status of the spoken response. If the speech recognition device determines that the answering person is the target person, the speech

recognition device initiates a speech recognition application with the target person. In other words, Merrow teaches that once the phone call is answered by a person, an attempt is made to determine whether the target person is on the phone through speech recognition, and Merrow teaches nothing about establishing a dialog or conversation beyond this point. The description provided in col. 2, line 50 – col. 3, line 40 is merely a description of steps involved in calling a target person and the possible contingencies for after the phone call is answered by an answering machine or a live person. The system of Merrow asks a simple question to invoke a response from the live person and uses voice recognition to evaluate the response. Merrow does not teach or suggest that the system prepare or ask any further questions or responses to establish interaction with the person answering the telephone in the form of a conversation. Thus, no conversation actually takes place between the device and the person answering the telephone. In other words, the Examiner has not proven that Merrow teaches anything beyond a system that simply identifies whether a target person can be reached at the target person's phone number based on voice recognition, which is not a dialog or conversation.

In the Response to Arguments section of the Final Office Action, the Examiner responds to Appellant's assertion that Merrow does teach or suggest the claim 1, 17, and 21 element of "presenting the contact with a predetermined out-calling dialog" by stating,

> "Regarding claim 1, the applicant argues on pages 7-9 that Merrow teaches nothing about establishing a dialogue. It is because Merrow's dialog is not conversation. Examiner respectfully disagrees with this argument. It is because, the applicant did not claim whether the dialog is a conversation without having any interaction with two parties. The claimed dialog is too broad that it covers interaction between two parties or two entities. Merrow teaches this limitation (see col. 2, line 50 - col. 3, line 40) "

The Examiner is attempting to redefine the term "dialog" to include the operations performed by Merrow, as described above. The courts have consistently held that language used in a claim must be interpreted according to clear definitions in the specification, as for example:

> "Words of a claim 'are generally given their ordinary and customary meaning.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc). A patentee, however, can "act as his own lexicographer to specifically define terms of a claim contrary to their ordinary meaning." *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004) (citation omitted). "The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim

> interpretation." *Id.* "***Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.***" *Id.* "In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence." See *Phillips*, 415 F.3d at 1312-17. "***Claims must be read in view of the specification, of which they are a part.***" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (en banc) (internal quotations omitted). ***Indeed, the specification is '[u]sually . . . dispositive" and "is the single best guide to the meaning of a disputed term.***" (emphasis added)

Of course, this principle is compatible with common sense and reason. Were explanations, definitions of claim terms, and figures required to be included in the claims themselves, the claims would run on for many pages, and would be impossible to parse and interpret. First, numerous examples of what is meant by the term "dialog" are provided in the current application. For example, on page 9, lines 8-24 of the current application an example dialog is given as follows:

> "The following is one of many possible out-calling system 102 ***dialogs*** which may be presented to the contact 108. The dialog can start with a greeting and a probing question to see whether the called party is still online, such as, "*Hello. This is Roby from the Sphinx bank. How are you doing today sir?*" The contact 108 might say something here or hang up on the call. If the contact 108 hangs up, the call is terminated and another contact is called. If the contact 108 is still on the line, the out-calling system can say, "*The reason I am calling today is to follow up with you regarding the product you purchased from us. We would like to get your feedback on the product. Are you willing to stay on the line with us for 3 to 5 minutes to provide feedback?*" The contact 108 may express interest or not. If no interest is detected then a "*thank you*" message is played for the contact 108 wherein the contact may be asked if the out-calling system 102 can call later and at what time. *If the contact 108 expresses interest, then the system 102 keeps the contact 108 engaged in the* ***conversation*** *while the call is being handed over to the operator 118*, by saying, "*Thank you sir. We would like to explain the process to you while a qualified operator is being selected to conduct the survey with you. We usually conduct this feedback to . . .*"

The above described dialog is entirely consistent with the commonly defined meaning of the term dialog which is "a conversation between two parties" (see e.g., Merriam-Webster's Online Dictionary, 11th Edition). As argued above, nowhere does Merrow teach or suggest establishes such a dialog in col. 2, line 50 – col. 3, line 40. Merrow does not teach or suggest that the system Merrow described in col. 2, line 50 - col. 3, line 40 establishing interaction

with the person answering the telephone in the form of a conversation. The Examiner cannot not specifically cite anywhere within col. 2, line 50 – col. 3, line 40 of Merrow teaching or suggesting a dialog as taught in the current application.

In rejecting claims 1, 17, and 21, the Examiner also contends that:

> "Merrow does not specifically teach translating the contact's vocal responses to a dialog into textual words using selected interactive voice response algorithms. Lau teaches translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms."

and the Examiner sites col. 6, lines 15-28 of Lau. However, Lau does not teach translating the contact's vocal response to a dialog into "textual words" as the Examiner contends. When col. 6, lines 15-28 are actually read in context with Figures 2 and 4a of Lau, a conversion of the response to a "*text-like* format" is carried out by a speech server 8 that performs the operation of comparing the text-like format to a list of responses as follows:

> "Call setup firmware 108 represents firmware residing on the line interface card 20 of speech server 8 (FIG. 2). Once the call is established, call manager 22 initiates a call flow. A call flow is a sequence of voice prompts (either pre-recorded or generated by TTS engine 28), received responses (which are recognized by speech recognition engine 24) and calls to other resources, such as calls to databases 15 and 17. Voice prompts are provided to the end user and answers are received as indicated by arrows 108a and 108b."

The call flow carried out by the server 8 is then described with reference to Figure 4a as follows:

> "An example of the initial portion of a call flow is provided in FIGS. 4a and 4b. The call flow begins at step 150 where a voice prompt is provided to the end user. This voice prompt can be either a pre-recorded message that is accessed and served up by call manager 22 or, for greater flexibility, the prompt could be a text message that is converted to speech through calls to TTS engine 28. As shown, the voice prompt at 150 requests information as to what destination the user seeks. As illustrated, four possible spoken responses will be considered valid when received and translated by speech recognition engine 24. These four valid responses are "shopping," "transportation," "points of interest" and "restaurant." Optionally, the voice prompt can list the four destination types that are available as valid responses. These are provided for example only. Numerous other destinations can be accommodated as well.
>
> ***The user responds to the prompt by answering with his or her destination type. The response is passed by call manager 22 to speech recognition engine 24 where the response is converted into a text-like format and compared to the grammar of acceptable responses.*** Depending upon the user's response, the call flow will proceed to either step 152, 154, 156, or 158. Although not illustrated for clarity, also

> contemplated in the preferred embodiments is a branch for error handling in the event the user's response is not recognized by speech recognition engine 24 or is recognized, but is an invalid response. Under those circumstances, the call flow could loop back to step 150 for a pre-set number of times, or could transfer the call to a human operator for further assistance. Other error handling routines, such as requesting responses in DTMF keypad format could also be employed." (emphasis added)

Thus, a careful reading of the text of Lau surrounding col. 6, lines 15-28 of Lau reveals that Lau actually teaches converting a response uttered by a user into a "*text-like* format" which is then compared to the grammar of acceptable responses (col. 6, lines 9-14) by the speech server 8. *Lau teaches nothing about the "text-like format" being in a format that can be read by a human operator.* When the uttered response is unrecognizable by the speech recognition engine 24, only then is a human operator connected to the user, but Lau does *not* teach sending the text-like format to the human operator. In contrast, the terms "textual words" of claims 1, 17, and 21 are referring to actual written language that can be read by a human operator as indicated by a subsequent claim 1, 17, and 21 element: "providing the operator with the textual words."

In the Response to Arguments section of the Final Office Action, the Examiner asserts:

> "[t]he applicant further argues on pages 8-10 that Lau teaches nothing about the text-like format being in a format that can be read by a human operator. *This argument is not relevant.* It is because, the examiner does not depend on Lau to teach the limitation. Instead, the examiner depends upon Lau for the missing element "translating the contacts for core responses to the dialog into textual words using selected interactive voice response algorithms." In column 6, lines 15 to 28 low teaches this limitation."

Applicant's representative respectfully disagrees. Here the Examiner is attempting to dismiss the significance of the limitation "texual" in the claim term "textual words." The textual words have to be in a human readable format because the words are provided an operator. On page 10, lines 9-11 of the detailed description of the current application, the meaning of the terms "textual words" is described as follows:

> "The operator 118, upon being connected to the contact 108, retrieves from the contact database 106 all of the contact's 108 responses to the dialog with the IVR module 114. These responses may either be in *textual form* or voice utterances."

The implication is that the operator can review the dialog that has already taken place. See also page 10, lines 21-24 and page 12, lines 16-19 of the detailed description of the current

application for a further explanation of what is meant by "textual words."

By contrast, because Lau does not teach or suggest presenting the responses that are translated into a "text-like format" to a human being, it cannot be determined if the "text-like format" means the translated responses are in a format that can be read by a human being. As argued above, Lau's only description of "text-like format" is that the responses are read by a machine.

Because all the elements of claims 1, 17, and 21 are not taught or suggested by Merrow, Lau, and Parolkar, claims 1, 17, and 21 are patentable over Merrow in view of Lau and further in view of Parolkar.

Regarding claim 2, the Examiner contends that Merrow "teaches that selecting the contact from a set of contacts within a contact database" in col. 2, lines 45-49 of Merrow. However, Merrow teaches no such thing in col. 2, lines 45-49, which is reproduced as follows:

> "The present invention is directed to a method of and system for determining the status of an answered telephone during the course of an outbound call. The system includes an automated telephone calling system which initiates a telephone call to a target person listed at a particular telephone number."

Clearly the two sentences in col. 2, lines 45-49 mention nothing about a database or an equivalent thereof or selecting a target person. Col. 2, lines 45-49 could simply be interpreted as an operating enters the telephone number of the target person and no database is used at all.

Regarding claims 5, 18, and 22, the Examiner contends that Merrow "teaches storing contact attributes in a contact database" in col. 2, lines 45-49. Appellant can find no teaching or suggestion of storing contact attributes in a contact database in col. 2, lines 45-49. The Examiner also contends that "Parolkar teaches storing contact's vocal responses, textual words in a contact database and providing the operator with access to the contact database" in col. 3, lines 17-27 and 61-67; col. 4, lines 1-3, which are reproduced as follows:

> "In another aspect of present invention, the received answer is a textual representation of either a DTMF tone, VoiceXML or HTML speech tags. In yet another aspect of the present invention, the method of collecting information includes providing the answer to a user of the recipient device. In still another aspect of the present invention, the interactive script includes a first query and a second query that depends on the answer to the first query. In another aspect of the present invention, the method of collecting information includes translating the answer to the interactive script into text.
>
> In another aspect of the present invention, the received answer is a textual

> representation of one of a DTMF tone, VoiceXML and HTML speech tags. In yet another aspect of the present invention, the answers to the query are provided to an agent at the final call destination. In still another aspect of the present invention, the interactive script includes a first query and a second query that depends on the answer to the first query. In another aspect of the present invention, the method of determining the final call destination includes translating the answers to the interactive script into text."

Appellant can find no teaching or suggestion in col. 3, lines 17-27 and lines 61-67, and col. 4, lines 1-3 of storing, or performing an equivalent operation, any information including textual words in a contact database, or allowing a user access to a database.

Regarding claim 6, the Examiner contends that "Lau teaches continuing a next portion of the out-calling dialog with contact while waiting for the human operator to become available" in col. 6, lines 15-28. Appellant disagrees. The full paragraph in col. 6, lines 15-30 is reproduced as follows:

> "The user responds to the prompt by answering with his or her destination type. The response is passed by call manager 22 to speech recognition engine 24 where the response is converted into a text-like format and compared to the grammar of acceptable responses. Depending upon the user's response, the call flow will proceed to either step 152, 154, 156, or 158. Although not illustrated for clarity, also contemplated in the preferred embodiments is a branch for error handling in the event the user's response is not recognized by speech recognition engine 24 or is recognized, but is an invalid response. Under those circumstances, the call flow could loop back to step 150 for a pre-set number of times, or could transfer the call to a human operator for further assistance. Other error handling routines, such as requesting responses in DTMF keypad format could also be employed."

Careful reading of the paragraph of col. 6, lines 15-30 reveals there is no mention of continuing a dialog with a contact *while waiting for the human operator to become available*.

Regarding claims 7 and 23, the Examiner contends that "Lau teaches determining whether the contact is interested in the out-calling dialog and wherein connecting includes, connecting the contact to the operator, if the contact is interested" in Figure 4a and col. 6, lines 15-28. Careful reading of the paragraph of col. 6, lines 15-30 cited above teaches nothing about assessing the user's interest in a dialog, and the flow diagram also teaches nothing about assessing the user's interest. Lau is directed to a method where the user calls the system for assistance (see Title; Abstract; col. 1, lines 16-19; Summary of the Invention). Thus, certainly the user is already interested in establishing a dialog and there is no need to assess the user's interest. By contrast, methods of the present invention are directed to calling a contact, in which case the system may reach people who don't want to talk. Hence

claims 7 and 21 are directed to assessing the contact's interest in establishing a dialog.

Regarding claims 8-11, the Examiner contends that "Lau teaches applying a set of heuristics to the textual words" and teaches "matching the textual words with predetermined keywords associated with interest" or "disinterest" in Figure 4a and col. 5, line 66 – col. 6, line 28. As defined and described in examples in the detailed description on page 7, line 7 – page 8, line 2, the term "heuristics" refers to keywords and keyword synonyms within a contact's response indicating the contact's interest or disinterest in the call. For example, the terms "sorry" and "not" occurring in an utterance made by a contact can be used to indicate disinterest in establishing a dialog. Lau does not teach or suggest an equivalent operation in Figure 4a, or col. 5, line 66 – col. 6, line 28. As already explained, Lau is directed to a method where *the user calls the system* for assistance. The user is most certainly already interested in establishing a dialog and there is no need to assess the user's interest. Thus, there is no teaching or suggesting anywhere in Lau of assessing a user's interest. By contrast, methods of the present invention are directed to methods where a system *calls the contact*, in which case there may be contacts who don't want to talk. Hence claims 8-11 include the use heuristics in assessing a contact's interest in establishing a dialog.

Regarding claim 13, the Examiner contends that "Merrow teaches terminating the call with the contact, if the contact is not interested" in col. 2, line 50-col. 3, line 40. In particular, col. 3, lines 7-40 describe various contingencies for determining whether the target person, an answering machine, or a person other the target person has been reached. However, there is no teaching or suggestion in col. 3, lines 7-40 of terminating the call based on a person's interest. Appellant ask the Examiner to identify a particular statement in the list of all the possible contingencies of col. 3, lines 7-40, where Merrow teaches, in addition to applying voice recognition to determine whether the target person is on the phone, assessing an answering person's interest in establishing a dialog. The Examiner has not responded to this request for evidence of Merrow teaching such a limitation.

Regarding claims 14 and 15, as already argued above, Lau does not teach or suggest assessing a user's interest in establishing a dialog and the Examiner has not specifically identified in Lau where Lau describes a situation or step in the flow diagram of Figure 4a, and accompanying description in col. 5, line 56 – col. 6, line 30, in which Lau teaches or suggests handling a user who is not interested in establishing a dialog with the system of Lau.

Claims 16 and 24 include a number of claim elements in common with claims

1, 17, and 21. In particular, claim 16 includes the claim elements,

"presenting the contact with a predetermined out-calling dialog" and

"translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms"

Claim 24 includes the claim elements,

"a dialog database containing a predetermined out-calling dialog" and

"an interactive voice response module for translating the contact's vocal responses to the dialog into textual words"

The Examiner's rejection of claims 16 and 24 depends on Merrow and Lau teaching the above identified claim elements. However, as argued above regarding claims 1, 17, and 21, Merrow in view of Lau do not teach or suggest these claim elements and limitations. Thus, claims 16 and 24 are patentable over Merrow in view of Lau and further in view of Parolkar.

ISSUE 2

2. Whether claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Merrow in view of Lau, further in view of Parolkar, and further in view of Kanevsky.

Regarding claim 12, as argued above, the Examiner has not established that Merrow in view of Lau and further in view of Parolkar teach or suggest the elements of claims 7 and 11 from which claim 12 depends. Thus, claim 12 is patentable over Merrow in view of Lau and further in view of Parolkar and further in view of Kanevsky.

CONCLUSION

It is not enough for an obviousness rejection to conclude that because two or more references describe different methods that have a few elements in common with the claims of the current application the references can simply be combined to make the claims obvious. As discussed above, the claims of the current application are quite distinct and dissimilar from the methods of Merrow and Lau and these differences are explicitly reflected in the language of the current claims. In addition, the Examiner has provided very little in the way of analysis in support of combining references directed to fundamentally different methods. As demonstrated above, the M.P.E.P. and current case law clearly place the burden of establishing obviousness on the Examiner. The Examiner cannot assert that a claim is

obvious by simply referencing a few paragraphs and Figures of prior art references without also citing facts and providing an explanation as to how the references can actually be combined.

Appellants respectfully submit that all statutory requirements are met and that the present application is allowable over all the references of record. Therefore, Appellants' respectfully requests that the present application be passed to issue.

Respectfully submitted,
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CLAIMS APPENDIX

1. A method for managing telephone, comprising:

calling a contact;

presenting the contact with a predetermined out-calling dialog;

translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms;

connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed; and

providing the operator with the textual words.

2. The method of claim 1 wherein calling includes:

selecting the contact from a set of contacts within a contact database.

3. The method of claim 1 further comprising:

classifying the contact as either a person or not a person; and

terminating the call, if the contact is not a person.

4. The method of claim 1 wherein presenting includes:

selecting the dialog from a set of dialogs stored in a dialog database based upon a set of attributes associated with the contact.

5. The method of claim 1:

further comprising,

storing the contact's vocal responses, textual words, and contact attributes in a contact database; and

wherein providing includes,

providing the operator with access to the contact database.

6. The method of claim 1 wherein connecting includes:

continuing a next portion of the out-calling dialog with the contact while waiting for the human operator to become available.

7. The method of claim 1:

further comprising,

determining whether the contact is interested in the out-calling dialog;

and

wherein connecting includes,

connecting the contact to the operator, if the contact is interested.

8. The method of claim 7, wherein determining includes:

applying a set of heuristics to the textural words.

9. The method of claim 7, wherein determining includes:

matching the textual words with predetermined keywords associated with interest.

10. The method of claim 7, wherein determining includes:

matching the textual words with predetermined keywords associated with disinterest.

11. The method of claim 7, wherein determining includes:

applying a set of heuristics to the textual words; and

concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's interest.

12. The method of claim 7, wherein determining includes:

applying a set of heuristics to the textual words;

associating a score with each heuristic;

totaling the scores; and

concluding that the contact is interest if the total score is above a predetermined threshold.

13. The method of claim 7, further comprising:

terminating the call with the contact, if the contact is not interested.

14. The method of claim 7, further comprising:

performing the translating and determining elements in parallel.

15. The method of claim 7, further comprising:

performing the determining element after the predetermined portion of the out-calling dialog with the contact is completed.

16. A method for managing telephone calls, comprising:

calling a contact;

presenting the contact with a predetermined out-calling dialog;

translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms;

connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed;

providing the operator with the textual words;

storing the contact's vocal responses, textual words, and contact attributes in a contact database;

wherein providing includes, providing the operator with access to the contact database;

determining whether the contact is interested in the out-calling dialog;

wherein connecting includes, connecting the contact to the operator, if the contact is interested; and

terminating the call with the contact, if the contact is not interested.

17. A computer program code for commanding a computer to manage telephone calls, comprising:

calling a contact;

presenting the contact with a predetermined out-calling dialog;

translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms;

connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed; and

providing the operator with the textual words.

18. The medium of claim 17:

further comprising,

storing the contact's vocal responses, textual words, and contact attributes in a contact database; and

wherein providing includes,

providing the operator with access to the contact database.

19. The medium of claim 17 wherein connecting includes:

continuing a next portion of the out-calling dialog with the contact while waiting for the human operator to become available.

20. The medium of claim 17:

further comprising,

determining whether the contact is interested in the out-calling dialog;

and

wherein connecting includes,

connecting the contact to the operator, if the contact is interested.

21. A system for managing telephone calls, comprising a:

means for calling a contact;

means for presenting the contact with a predetermined out-calling dialog;

means for translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms;

means for connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed; and

means for providing the operator with the textual words.

22. The system of claim 21, further comprising:

means for storing the contact's vocal responses, textual words, and contact attributes in a contact database.

23. The system of claim 21, further comprising:

means for determining whether the contact is interested in the out-calling dialog.

24. A system for managing telephone calls between an operator and a contact, comprising:

a contact database for storing information on the contact;

a dialog database containing a predetermined out-calling dialog;

a call manager for calling the contact and presenting the contact with the dialog; and

an interactive voice response module for translating the contact's vocal responses to the dialog into textual words and storing the words in the contact database which are accessible to the operator.

25. The system of claim 24, wherein the contact database includes:

a set of attributes associated with the contact.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.